

That Which is Claimed is:

1. A polymeric composition comprising at least one population of polymeric particles, wherein said polymeric particles comprise a rubber-containing portion, and wherein said rubber-containing portion comprises:

a. less than 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and

b. at least one of the following:

1) an organosiloxane polymer component,

2) a vinyl polymer component, or

3) an organosiloxane polymer component, and a vinyl polymer component.

2. A polymeric composition as recited in claim 1, wherein said rubber-containing portion comprises no isobutylene polymer component.

3. A polymeric composition comprising:

a. at least one population of polymeric particles, wherein said polymeric particles comprise a rubber-containing portion, and wherein said rubber-containing portion comprises:

1) at least 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and

2) at least one of the following:

a) an organosiloxane polymer component,

b) a vinyl polymer component, or

c) an organosiloxane polymer component, and a vinyl polymer component; and

b. at least 1 weight percent of a processing oil component.

4. A polymeric composition as recited in claim 3, wherein the weight ratio of processing oil component to total weight of the at least one population of polymeric particles ranges from 0.1:10 to 5.0:10.

5. A polymeric composition as recited in claim 3, wherein the processing oil component comprises at least one compound selected from the group consisting of: polymers having a weight average molecular weight of less than 5,000 g/mol, alkylacrylates having an alkyl group containing at least 12 carbon atoms, esters containing carboxylic acids or alcohols with 12 or more carbon atoms, vegetable oils, marine oils, industrial oils, palm oils, animal fats, and mineral oils.

6. A polymeric composition comprising:

a. at least one population of polymeric particles, wherein said polymeric particles comprise a rubber-containing portion, and wherein said rubber-containing portion comprises:

1) at least 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and

2) at least one of the following:

a) an organosiloxane polymer component,

b) a vinyl polymer component, or

c) an organosiloxane polymer component, and a vinyl polymer component; and

b. at least 2 weight percent of a processing aid component.

7. A polymeric composition comprising:

a. a population of polymeric particles, wherein said polymeric particles comprise void-containing rubber portion, wherein the volumetric proportion of the voids defined therein ranges from 1 to 80 percent, and wherein said void-containing rubber portion comprises:

1) at least 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the respective first and second populations polymeric particle's rubber-containing portion, and

2) at least one of the following:

- a) an organosiloxane polymer component,
- b) a vinyl polymer component, or
- c) an organosiloxane polymer component, and a vinyl polymer component.

8. A polymeric composition comprising a first and second population of polymeric particles,

a. wherein said first and second populations of polymeric particles comprise a rubber-containing portion,

b. wherein said rubber-containing portion of said first and second populations of polymeric particles each comprise:

1) at least 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and

2) at least one of the following:

- a) an organosiloxane polymer component,

b) a vinyl polymer component, or

c) an organosiloxane polymer component, and a vinyl polymer component; and

c. wherein said second population of polymeric particles is characterized by at least one of the following:

1) the rubber-containing portion of the second population of polymeric particles has voids defined therein, and the volumetric proportion of the voids defined within the second population of polymeric particles is at least 20 percent greater than the volumetric proportion of voids defined within the first population of polymeric particles,

2) the chemical composition of the second population of polymeric particles is different from the chemical composition of the first population of polymeric particles,

3) the mean particle diameter of the second population of polymeric particles is at least 20 percent different from the mean particle size of the first population of polymeric particles, and

4) the shape of the second population of polymeric particles is different from the shape of the first population of polymeric particles.

9. A plastic matrix system comprising a plastic resin component and polymeric composition, wherein said polymeric composition comprises at least one population of polymeric particles, wherein said polymeric particles comprise a rubber-containing portion, and wherein said rubber-containing portion comprises:

a. less than 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and

b. at least one of the following:

1) an organosiloxane polymer component,

- 2) a vinyl polymer component, or
- 3) an organosiloxane polymer component, and a vinyl polymer component.

10. A plastic matrix system comprising a plastic resin component and polymeric composition, wherein said polymeric composition comprises:

a. at least a first population of polymeric particles, wherein said polymeric particles comprise a rubber-containing portion, and wherein said rubber-containing portion comprises:

1) at least 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and

2) at least one of the following:

- a) an organosiloxane polymer component,
- b) a vinyl polymer component, or
- c) an organosiloxane polymer component, and a vinyl polymer component; and

b. at least one of the following:

- 1) at least 1 weight percent of a processing oil component,
- 2) at least 2 weight percent of a processing aid component,
- 3) the at least one population of polymeric particles comprise a void-containing rubber portion, wherein the volumetric proportion of the voids defined therein ranges from 1 to 80 percent, or
- 4) a second population of polymeric particles characterized by at least one of the following:

a) the rubber-containing portion of the second population of polymeric particles has voids defined therein, and the volumetric proportion of the voids defined within the second population of polymeric particles is at least 20 percent greater than the volumetric proportion of voids defined within the first population of polymeric particles,

b) the chemical composition of the second population of polymeric particles is different from the chemical composition of the first population of polymeric particles,

c) the mean particle diameter of the second population of polymeric particles is at least 20 percent different from the mean particle size of the first population of polymeric particles, and

d) the shape of the second population of polymeric particles is different from the shape of the first population of polymeric particles.